

Work Order ID 149968

August 16, 2016 11:14:16 AM

149968

Page 1

Item ID: 647.1307 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: EC145 T2 Cable Cutter System
 Start Date: 8/19/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 9/16/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: SH Date: AUG 15 2016 Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr	
647.1300	D	DAS 6 9-89

100 DOCUMENT CONTROL 0.00
100
 DC Memo 0.00
 Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP 647.1307

DAS 28 9-89

MAR 30 2017

110 Pick Kit 0.00
110
 Packaging Memo 0.00
 Packaging

① PK

DAS 27 9-89 SEP 22 2016

120 QC4- 100% Inspect kits for completeness 0.00
120
 QC Memo 0.00
 Quality Control

DAS 28 9-89

MAR 30 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			OTHER : ☐																	

Work Order ID 149968

August 16, 2016 11:14:16 AM

149968

Page 2

Item ID: 647.1307

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 9/16/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

0.00

130

Packaging

Packaging

Memo

0.00

Identify and pack for shipping as per PPP 647.1307

Location: **Fg 103**

EXPIRY DATE OF:

RTV Loctite 598: **04/2018**MAGNOBOND 6398 PART 1: **5/30/2017**MAGNOBOND 6398 PART 2: **5/30/2017**SEALANT PR-1425: **13089979 9/30/2017*****INDICATE ON BOX EXPIRY DATE OF RTV, MAGNOBOND PART1,
MAGNOBOND PART2 AND SEALANT PR-1425 ***DAS
28
9-89

MAR 30 2017

140

0.00

140

QC

QC21- Final Inspection - Work Order Release

Memo

0.00

*** Enter exp. date in lot maintenance for RTV loctite 598, MAGNOBOND
PART1, MAGNOBOND PART2 AND SEALANT PR-1425***17/4/4 **DF**DAS
21
9-89

APR 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

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Page 1

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 15.07.09 AS PER REV D DD VERIFIED BY:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.1402 *647 1402* Lower Cutter Assembly		Manufactured	No				Each	1.0000	**	1			DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					CCK048	1							
					140969	1							
647.1602 *647 1602* Doubler Assembly		Manufactured	No				Each	27.0000	**	1			DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					CCK107	27							
					92479	4							
					M130388	23							
647.2201 *647 2201* Cross Assembly		Manufactured	No				Each	9.0000	**	1			DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					cck079	9							
					132104	4							
					94797	5							
647.3201 *647 3201* Grounding Cable Assembly		Manufactured	No				Each	7.0000	**	1			DAS 27 9-89
					<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>						
					cck111	7							
					123417	7							

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Page 2

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

647.1601 Manufactured No

Each 0.0000

647 1601 DAS 28 9-89

Wiper Deflector Aft

647.1610 Manufactured No

Each 6.0000

647 1610

Wiper Deflector Fwd

Location

Loc Qty

Loc Code

CCK091

6

93367

1

M130388

5

Each 28.0000

647.0112 Manufactured No

647 0112

Strut Bracket

Location

Loc Qty

Loc Code

CCK107

28

142661

28

Each 11.0000

647.1911 Manufactured No

647 1911

Bracket RH

Location

Loc Qty

Loc Code

CCK110

11

125082

3

92227

8

Each 10.0000

647.1912 Manufactured No

647 1912

Bracket LH

Location

Loc Qty

Loc Code

CCK110

10

125082

2

92228

8

1 148295 OCT 04 2016 DAS 27 9-89

1 PC DAS 27 9-89

8 B148545 PC DAS 27 9-89

1 PC DAS 27 9-89

1 PC DAS 27 9-89

SEP 22 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

August 16, 2016 11:14:14 AM

Page 3

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

647.1817

Manufactured No

Each

16.0000

647 1817

Support RH

**

1

P<

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK092

16

125082

16

647.1816

Manufactured No

Each

17.0000

647 1816

Support LH

**

1

P<

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK092

17

125082

16

92551

1

647.1914

Manufactured No

Each

8.0000

647 1914

Bracket

**

1

P<

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK110

8

109733

8

647.2011

Manufactured No

Each

18.0000

647 2011

Lower Strut

**

2

P<

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

Cck021

18

123511

8

125082

10

SEP 22 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

August 16, 2016 11:14:14 AM

Page 4

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

647.1915

Manufactured No

Each

29.0000

647 1915

Support Angle

**

1

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK093

29

114127

6

92230

9

93416

3

M130388

11

647.1815

Manufactured No

Each

34.0000

647 1815

Gusset RH

**

1

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK032a

24

M130388

24

CCK110

10

106681

3

92076

4

92492

3

647.1814

Manufactured No

Each

36.0000

647 1814

Gusset LH

**

1

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

cck023a

6

92075

6

CCK032a

24

M130388

24

CCK110

6

106843

3

93333

3

SEP 22 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

August 16, 2016 11:14:14 AM

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

647.1913

Manufactured No

Each

21.0000

647 1913

Tee

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK093

21

114126

6

92229

10

94139

5

**

1

PC

DAS
27
9-89

647.1813

Manufactured No

Each

46.0000

647 1813

Angle

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK108

46

125082

22

92074

18

92556

2

94189

4

**

2

PC

DAS
27
9-89

647.1818

Manufactured No

Each

33.0000

647 1818

Nose Door Spacer

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK032a

24

M130388

24

CCK110

9

92079

6

93302

3

**

1

PC

DAS
27
9-89

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐				Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐				Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐				Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐											
OTHER : ☐																									

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

647.1810

Manufactured No

Each

22.0000

647 1810

Nose Door Doubler

DAS
28
9-89

**

Location

Loc Qty

Loc Code

CCK108

22

92070

6

93293

3

M130388

13

647.1910

Manufactured No

Each

55.0000

647 1910

Clip

DAS
28
9-89

**

Location

Loc Qty

Loc Code

CCK110

55

125082

20

92226

31

92506

4

647.1812

Manufactured No

Each

324.0000

647 1812

Shim

DAS
28
9-89

**

Location

Loc Qty

Loc Code

CCK107

274

92073

77

M130388

197

CCK108

50

92490

1

93192

49

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

647.2510

Manufactured No

Each

133.0000

647 2510

Sleeve

**

4

PK DAS 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck111

28

92233

28

CCK123

105

125082

63

M130388

42

4

647.2511

Manufactured No

Each

67.0000

647 2511

Nut

**

4

PK DAS 27 9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck111

67

100468

10

110638

26

92235

18

93354

13

4

647.1811

Manufactured No

Each

52.0000

647 1811

Spacer

**

2

PK DAS 27 9-89

DAS
28
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK108

52

92009

1

92072

12

93341

6

M130388

33

2

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

NAS6604-66 Purchased No

Each 104.0000

4

NAS6604-66

**

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST553

104

124328

60

M130388

44

NAS1149F0432P Purchased No

Each 1,059.000

8

NAS1149F0432P

**

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST260a

1000

M134955

1000

ST262

59

M134502

59

AN3-11A Purchased No

Each 187.0000

12

AN3-11A

**

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

over003

100

m135390

100

ST349

87

m134852

87

AN3C10A Purchased No

Each 18.0000

2

AN3C10A

**

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST349

18

m135056

18

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DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : _____							

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

AN4CH6A Purchased No

Each 43.0000

AN4CH6A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST345

43

123525

20

123900

3

m126176

20

AN3-4A Purchased No

Each 216.0000

AN3-4A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

216

m134955

216

MS24694-C52 Purchased No

Each 51.0000

MS24694-C52

SCREW

**

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

45

m127059

17

m133855

28

~~ST350~~

6

124308

6

ST350

SEP 22 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-07

Purchased

No

Each

330.0000

3

MS27039-1-07

**

PC

DAS 27 9-89

Screw

DAS 28 9-89

Location

Loc Qty

Loc Code

GA

270

125654

270

Return2016

1

m127813

1

ST281

59

m135015

59

MS27039-1-10

Purchased

No

Each

72.0000

6

MS27039-1-10

**

M 135 603 PC

DAS 27 9-89

SCREW

DAS 28 9-89

Location

Loc Qty

Loc Code

GA

14

m129541

14

ST280

58

m134676

58

AN525-10R12

Purchased

No

Each

173.0000

4

AN525-10R12

**

PC

DAS 27 9-89

Screw

DAS 28 9-89

Location

Loc Qty

Loc Code

ST329

173

102587

173

MS27039-1-20

Purchased

No

Each

105.0000

4

MS27039-1-20

**

PC

DAS 27 9-89

Screw

DAS 28 9-89

Location

Loc Qty

Loc Code

ST280

105

124326

105

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : _____									

Picklist Print

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-08-07

Purchased

No

Each

111.0000

1

MS27039-08-07

**

SCREW

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

ST278

111

m130388

1

m131317

10

m132035

100

Each

1,724.000

**

104

M135544 PC27

DAS
27
9-89

NAS1149F0332P

Purchased

No

NAS1149F0332P

Washer

Location

Loc Qty

Loc Code

GA

282

m133709

282

ST262

1442

m134257

37

m134676

19

m135058

1386

Each

1,982.000

**

10

M135603 PC27

DAS
27
9-89

NAS1149FN832P

Purchased

No

NAS1149FN832P

Washer

Location

Loc Qty

Loc Code

GA

1705

M133316

16

M133769

89

M135058

1600

ST263

277

M134257

277

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Picklist Print

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

601.2375 Manufactured No

Each 68.0000

601 2375

Washer

DAS
28
9-89

**

3

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK096

68

91708

68

Each

0.0000

**

3
19

M135407 PC

DAS
27
9-89

MS21042-3 MS21042L3 Purchased No

MS21042-3

Nut

DA
28
9-89

MS21042-08 MS21042L08 Purchased No

MS21042-08

USE MS21042L08

DAS
28
9-89

Location

Loc Qty

Loc Code

ST304

25

122815

25

ST306

8

m130388

8

Each

1,591.000

**

4

M135470 PC

DAS
27
9-89

MS21042L4 Purchased No

MS21042L4

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

51

m133363

51

GA

424

m133769

116

m135058

308

ST3003

26

m134955

26

ST303

1090

m135127

114

m135297

976

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Shop Packet Print

Page 13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
Root Cause				FAULT CATEGORY																					
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐		Power Loss/Surge ☐		Positioned Wrong ☐															
Design ☐		Operator ☐		Bending ☐		Set-up ☐		Folio/Program ☐		Outside Dimensions ☐															
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐		Grain ☐		Over/Under tolerance ☐															
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐		Weld ☐		Part Incorrect ☐															
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐		Wrong Stock Pulled ☐		Part Lost/Missing ☐															
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐		Out of Sequence ☐		Part Moved ☐															
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐		Off-set ☐		Drawing ☐															
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐		Mislabeled ☐		Finish ☐															
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐		Fit/Function ☐		Misread ☐															
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐		Misaligned/off center ☐		Turning Sequence ☐															
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____																					
Misidentified ☐		Past Due ☐																							

Picklist Print

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

MS21047-3

Purchased

No

Each

157.0000

12

MS21047-3

Nut Plate

**

PC

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST301

157

m134955

57

m135297

100

CCR264SS3-04

Purchased

No

Each

400.0000

12

CCR264SS3-04

Rivet

**

PC

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK004

400

123785

400

CCR274SS-3-03

Purchased

No

Each

121.0000

4

CCR274SS-3-03

Rivet

**

PC

DAS
27
9-89

DA
28
9-89

Location

Loc Qty

Loc Code

ST321

121

123785

121

CCR264SS-3-03

Purchased

No

Each

274.0000

12

CCR264SS-3-03

Cherry Rivet

**

PC

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

LG001

97

m128606

29

m134023

68

ST321

177

m135127

177

12

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

CR3213-4-4

Purchased

No

Each

160.0000

CR3213-4-4

Rivet, Cherry

**

4 M135056 PC DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK003

100

M135408

100

ST319

60

M130388

35

M134962

25

CR3213-6-6

Purchased

No

Each

300.0000

CR3213-6-6

Rivet (601.2995)

**

8 PC DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK004

200

m126254

100

m127831

100

ST318

100

123785

100

CR3213-4-3

Purchased

No

Each

166.0000

CR3213-4-3

Rivet, Cherry

**

22 19xM 135056 PC 3xM 135 135 DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK003

100

m135135

100

ST319

66

m131340

66

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

CR3213-4-5

Purchased

No

Each

325.0000

CR3213-4-5

Rivet

**

8

M135407PC

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK003

100

M129913

100

ST319

225

M129913

125

M134852

100

CR3213-4-2

Purchased

No

Each

192.0000

CR3213-4-2

Cherry Rivet

**

2

PC

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK003

100

m134058

100

ST320

92

123301

92

CR3213-4-6

Purchased

No

Each

206.0000

CR3213-4-6

Rivet

**

11

PC

DAS
28
9-89

Location

Loc Qty

Loc Code

ST319

206

M131800

206

CR3213-4-7

Purchased

No

Each

250.0000

CR3213-4-7

Rivet

**

16

PC

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK003

100

m126320

100

ST319

150

123785

150

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Picklist Print

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Page 17

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

CR3213-4-8

Purchased

No

Each

88.0000

12

CR3213-4-8

**

Rivet

DAS
28
9-89

Location

Loc Qty

Loc Code

ST319

88

123785

88

Each

130.0000

2

NAS1834C3-300

Purchased

No

NAS1834C3-300

**

Insert

DAS
28
9-89

Location

Loc Qty

Loc Code

ST264

130

M124826

30

M128686

100

Each

55.0000

2

MS21266-2N

Purchased

No

MS21266-2N

**

Grommet

DAS
28
9-89

Location

Loc Qty

Loc Code

ST294

55

123900

40

M130388

15

f

76.1000

3

601.3011

Manufactured

No

601 3011

**

P-Seal

PD
1609.22
36"

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK095

50

91709

50

CCK099

26.1

M130388

26.1

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

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Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

600.0990

Purchased

No

Each

23.0000

600 0990

Magnabond 6398 Part A Size 112 ml

**

1

P<

DAS
27
9-89

5/30/2017

Location

Loc Qty

Loc Code

CA2

11

M135213

11

PKG

12

M134167

1

M134249

11

600.0991

Purchased

No

Each

22.0000

600 0991

Magnabond 6398 Part B Size 112 ml

**

1

P<

DAS
27
9-89

5/30/2017

Location

Loc Qty

Loc Code

CA2

11

m135213

11

PKG

11

m134167

1

m134249

10

600.1012

Purchased

No

Each

15.0000

600 1012

Sealant PR1425B2 (#654 sem)

**

1

M135600

DAS
27
9-89

9/30/2017

DAS
28
9-89

Location

Loc Qty

Loc Code

cck017

15

m135135

7

m135407

8

13688

SEP 22 2016

MAR 27 2017
DAS
6
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
☐ Environment	☐ Design	☐ Doc/Data	☐ Equip/Tooling	☐ Handling/Pre	☐ Material	☐ Internal Transport	☐ Tribal Knowledge
☐ LOA	☐ Substation	☐ Past Expiry Date	☐ Misidentified	☐ No Re-verification	☐ Operator	☐ Offset/Setup	☐ Supplier
☐ Training	☐ Use for Testing	☐ Poor Information	☐ Rushing	☐ Product Improvement	☐ Process Improvement	☐ Manufacturing Process	☐ Past Due
☐ Pressure/Forced	☐ Bending	☐ Centre Not Concentric	☐ Cracks	☐ Crimp/Kink/Ripple/Wave	☐ Cuffs	☐ Crushing	☐ Heat Treat
☐ Wave/Twist in Tube	☐ Marks/Chatter	☐ Temperature/Cure	☐ Set-up	☐ BOM/Route	☐ Broken/Damage/Defect	☐ Inspection Incomplete/Unqualified	☐ Contamination
☐ Countersink	☐ Cut Too Short	☐ Instructions Incomplete/Unclear	☐ Drill Holes	☐ Power Loss/Surge	☐ Folio/Program	☐ Grain	☐ Weld
☐ Wrong Stock Pulled	☐ Out of Sequence	☐ Off-set	☐ Mislabeled	☐ Fit/Function	☐ Misaligned/off center	☐ Positioned Wrong	☐ Outside Dimensions
☐ Over/Under tolerance	☐ Part Incorrect	☐ Part Lost/Missing	☐ Part Moved	☐ Drawing	☐ Finish	☐ Misread	☐ Turning Sequence
OTHER : _____							

Picklist Print

August 16, 2016 11:14:15 AM

Page 20

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

601.2045

Purchased

No

Each

13.0000

601 2045

RTV (LOCTITE 598) McMaster p/n: 6641A41

**

① ~ 135 628 pc 

Location

Loc Qty

Loc Code

CCK096

5

m135138

5

GA

8

m134260

8

Each

65.0000

**

2 PC 

647.2010

Manufactured

No

647 2010

Upper Strut

Location

Loc Qty

Loc Code

CCK094

65

106783

30

91895

31

m123185

1

m125082

3

Each

183.0000

**

2 PC 

MS27039-1-17

Purchased

No

MS27039-1-17

Screw (601.1954)

Location

Loc Qty

Loc Code

GA

183

120142

34

m127831

149

2 SEP 22 2016

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

August 16, 2016 11:14:15 AM

Page 21

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-15A

Purchased

No

Each

38.0000

AN3-15A

Bolt

**

5

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

10

114941

10

ST348

28

M132551

28

647.1403

Manufactured

No

Each

4.0000

647 1403

Upper Cutter Assembly, U-Channel

**

1

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK048

4

128326

3

144090

1

91292A080

Purchased

No

Each

23.0000

91292A080

Screw

**

4

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

ST588

23

M127948

23

93625A300

Purchased

No

Each

30.0000

93625A300

Locknut

**

4

PC

DAS
27
9-89

Location

Loc Qty

Loc Code

ST588

30

M127948

30

DAS
28
9-89

SEP 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

August 16, 2016 11:14:15 AM

Page 22

Work Order ID: 149968

149968

Parent Item: 647.1307

647 1307

Parent Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

93475A270

Purchased No

Each 60.0000

93475A270

Washer

**

8

PC

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST588

60

M127948

60

647.2112

Manufactured No

Each 0.0000

647 2112

Upper U Channel

LN9037-8018

**

1

149970

OCT 04 2016

DAS 28 9-89

Purchased No

Each 0.0000

I N9037-8018

Screw

LN9025-0820K

**

8

136136 X 2 6 X M134969 PC
6 X 137156 2 X M135585

DAS 28 9-89

Purchased No

Each 24.0000

I N9025-0820K

Lock Tab Washer

**

8

PC

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST563

24

M128007

24

647.2113

Manufactured No

Each 0.0000

647 2113

Lower Rail, U-Channel

LN9023A8-1.4544.9

**

1

144770

OCT 04 2016

DAS 28 9-89

Purchased No

Each 0.0000

I N9023A8-1.4544.9

Lock Tab

647.1703

**

8

M135585 PC

DAS 28 9-89

Manufactured No

Each 1.0000

647 1703

Skid Deflector Assembly

**

2

MAR 1 2017
SW 149923X1

PC

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK037

1

141810

1

SEP 22 2016

August 16, 2016 11:14:15 AM

Shop Packet Print

Page 22

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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NOTES: UNLESS OTHERWISE SPECIFIED

- 1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES
2. APPLY F/N 74 TO FAYING SURFACES
- 3 AT CUSTOMERS OPTION, INSTALL F/N 77 BY MATCH DRILLING ONTO F/N 1
- 4 INSTALL FOR 647.1301, 647.1302.
- 5 INSTALL FOR 647.1304, 647.1305.
- 6 APPLICABLE WHEN EUROCOPTER P/N 145-250014.11 IS INSTALLED WITH EUROCOPTER CABLE CUTTER FIXED PROVISIONS.
- 7 APPLICABLE WHEN REPLACING EUROCOPTER P/N 145-250074.11
- 8 INSTALL WITH:
647.1304
647.1305
647.1307
647.1308

PROVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PROTOTYPE REVISION: FIG		N/C
N/C	INITIAL RELEASE	08/05/09	P. BRAVO
A	INCORPORATED ECH 02P43, 03030, 03048	01/25/11	P. BRAVO
B	INCORPORATED ECH 03P19	07/05/13	P. BRAVO
C	INCORPORATED ECH 04059	08/13/13	P. BRAVO
D	INCORPORATED ECH'S 04085, 045921 & 04974	04/17/15	P. BRAVO

AUG 15 2016

SK
149968

1		1	1		1	1		1	14	647.1817	SUPPORT, RH		
1		1	1		1	1		1	13	647.1912	BRACKET, LH		
1		1	1		1	1		1	12	647.1911	BRACKET, RH		
	8	8		8	8			8	8	11	647.0112	STRUT BRACKET	
								1	1	10	647.2110	LOWER RAIL	
								1	1	9	647.2111	UPPER RAIL	
	1	1		1	1			1	1	8	647.1610	WIPER DEFLECTOR, FWD	
	1	1		1	1			1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT	
								2	2	6	647.1701	SKID DEFLECTOR ASSY	
1		1	1		1	1			1	5	647.3201	GROUNDING CABLE ASSY	
1		1	1		1	1			1	4	647.2201	CROSS ASSY	
1		1	1		1	1			1	3	647.1602	DOUBLER ASSY	
	1	1		1	1			1	1	2	647.1402	CUTTER ASSY (LOWER)	
								1	1	1	647.1401	CUTTER ASSY (UPPER)	
X											647.1309	EC145 T2 FIXED PROVISIONS KIT	
	X										647.1308	EC145 T2 REMOVABLE PROVISIONS KIT	
		X									647.1307	EC145T2 CABLE CUTTERS KIT	
			X								647.1306	FIXED PROVISIONS KIT U CHANNEL	
				X							647.1305	REMOVABLE PROVISIONS KIT U CHANNEL	
					X						647.1304	EC145 CABLE CUTTERS KIT U CHANNEL COMPATIBLE	
						X					647.1303	FIXED PROVISIONS KIT	
							X				647.1302	REMOVABLE PROVISIONS KIT	
								X			647.1301	EC145 CABLE CUTTERS KIT	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

QTY	ORIGINAL DATE (DD-MY-YY)	ST/CLERK	DATE
NEXT ASSY (S)	DRAWN BY	ENGINEER	
	R. ROSANO	D. BARKER	
	DESIGNED BY	APPROVAL	
	P. BRAVO		
	CONTRACT NO.		
	UNLESS OTHERWISE SPECIFIED		
	DIMENSIONS ARE IN INCHES		
	TOLERANCES ARE:		
	2 PLACES DECIMALS .003		
	3 PLACES DECIMALS .0005		
	ANGLES .5°		

PARTS LIST	
DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)724-5300 ANCAL INDUSTRIES INC. (DART AEROSPACE)	
EC145 CABLE CUTTERS KIT SEE CAGE CODE B 07M26 SCALE NONE	DWG. NO. 647.1300 REV. D SHEET 1 OF 10

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	4	4		4	4		4	4	51	601.3209	LOCKNUT	MS21042L4	
1	4	5	1	4	5	1	8	9	50	601.2973	LOCKNUT	MS21042-08	
27	19	46	27	19	46	27	18	45	49	601.2943	LOCKNUT	MS21042-3	
	3	3		3	3		3	3	48	601.2375	WASHER		
2	8	10	2	8	10	2	16	18	47	601.2764	WASHER	NAS1149FN832P	
62	42	104	62	42	104	62	40	102	46	601.1607	WASHER	NAS1149F0332P	
1		1	1		1	1			45	601.2525	SCREW	MS27039-0807	
4		4	4		4	4		4	44	601.1952	SCREW	MS27039-1-20	
							4	4	43	601.3010	SCREW	MS27039-0810	
	4	4		4	4		4	4	42	601.3224	SCREW	AN525-10R12	
6		6	6		6	6		6	41	601.1365	SCREW	MS27039-1-10	
3		3	3		3	3		3	40	601.2198	SCREW	MS27039-1-07	
	3	3		3	3		3	3	39	601.2999	SCREW		
18		18	18		18	18		18	38	601.2459	SCREW	MS27039C1-06	
	4	4		4	4		4	4	37	601.1622	SCREW	MS27039-1-14	
10		10	10		10	10		10	36	601.2051	SCREW	MS24694CS2	
2		2	2		2	2		2	35	601.2823	BOLT	AN3-4A	
1		1	1		1	1		1	34	601.1324	BOLT	AN4CH6A	
	2	2		2	2		2	2	33	601.1874	BOLT	AN3C10A	
	12	12		12	12		16	16	32	601.2826	BOLT	AN3-11A	
	8	8		8	8		8	8	31	601.2638	WASHER	NAS1149F0432P	
	4	4		4	4		4	4	30	601.3002	BOLT	NAS6604-66	
2		2	2		2	2		2	29	647.1811	SPACER		
4		4	4		4	4		4	28	647.2511	NUT		
4		4	4		4	4		4	27	647.2510	SLEEVE		
13		13	13		13	13		13	26	647.1812	SHIM		
4		4	4		4	4		4	25	647.1910	CLIP		
1		1	1		1	1		1	24	647.1810	NOSE DOOR DOUBLER		
1		1	1		1	1		1	23	647.1818	NOSE DOOR SPACER		
2		2	2		2	2		2	22	647.1813	ANGLE		
1		1	1		1	1		1	21	647.1913	TEE		
1		1	1		1	1		1	20	647.1814	GUSSET, LH		
1		1	1		1	1		1	19	647.1815	GUSSET, RH		
1		1	1		1	1		1	18	647.1915	SUPPORT ANGLE		
	2	2		2	2		2	2	17	647.2011	LOWER STRUT		
1		1	1		1	1		1	16	647.1914	BRACKET		
1		1	1		1	1		1	15	647.1816	SUPPORT, LH		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

ORIGINAL DATE 07/06/09	 DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL BRANCHES, INC. P.O. BOX 145000 PHOENIX, AZ 85060	EC145 CABLE CUTTERS KIT SEE CAGE CODE B 07M26 DOWC. NO. 647.1300 SCALE NONE SHEET 2 OF 10
DRAWN BY R. ROSARIO		
CHECKED BY D. BARBER		
DRAWING APPROVAL P. BRAVO 08/05/09		
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ± .5°		

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	2	2							89	647.1703	12 SKID DEFLECTOR ASSY		
	8	8							88	601.3812	LOCK TAB	LN9023A8-1.4544.9	
				2	2				87	647.1702	SKID DEFLECTOR ASSY	△	
	1	1		1	1				86	647.2113	LOWER RAIL (U CHANNEL KIT)		
	8	8		8	8				85	601.3655	WASHER	LN9025-0820K	
	8	8		8	8				84	601.3654	SCREW	LN9037-08018	
1		1	1		1				83	647.2112	UPPER U CHANNEL		
	8	8		8	8				82	601.3653	WASHER	93475A270	
	4	4		4	4				81	601.3652	LOCKNUT	93625A300	
	4	4		4	4				80	601.3651	SCREW	91292A080	
	1	1		1	1				79	647.1403	CUTTER ASSY (UPPER U CHANNEL)		
	5	5		5	5				78	601.3650	BOLT	AN3-15A	
REF	REF	REF	REF	REF	REF	REF	REF	REF	77	647.5701	GPS MOUNT KIT	△	
2		2	2		2	2		2	76	601.1954	SCREW	MS27039-1-17	
	2	2		2	2		2	2	75	647.2010	UPPER STRUT		
1	1	1	1	1	1	1	1	1	74	601.2045	RTV	LOCTITE 598	
1	1	1	1	1	1	1	1	1	73	600.1012	SEALANT	PR-1425 CLASS B	
1	1	1	1	1	1	1	1	1	72	600.0991	MAGNOBOND 6398 PART B		
1	1	1	1	1	1	1	1	1	71	600.0990	MAGNOBOND 6398 PART A		
4		4	4		4	4		4	70	601.3012	SCREW	MS27039-1-15	
2		2	2		2	2		2	69	601.3004	CAMLOC STUD		
2		2	2		2	2		2	68	601.3005	CAMLOC RETAINER		
2		2	2		2	2		2	67	601.3006	CAMLOC RECEPTACLE		
3 FT.		3 FT.	3 FT.		3 FT.	3 FT.		3 FT. *	66	601.3011	P-SEAL		
1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	65	601.3007	GROMMET	MS21266-2N	
2		2	2		2	2		2	64	601.3008	INSERT	NAS1834C3-300	
12		12	12		12	12		12	63	601.2364	RIVET	CR3213-4-8	
16		16	16		16	16		16	62	601.2468	RIVET	CR3213-4-7	
11		11	11		11	11		11	61	601.2991	RIVET	CR3213-4-6	
2		2	2		2	2		2	60	601.1039	RIVET	CR3213-4-2	
8		8	8		8	8		8	59	601.1183	RIVET	CR3213-4-5	
22		22	22		22	22		22	58	601.0790	RIVET	CR3213-4-3	
8		8	8		8	8		8	57	601.2995	RIVET	CR3213-6-6	
4		4	4		4	4		4	56	601.1915	RIVET	CR3213-4-4	
12		12	12		12	12		12	55	601.2207	NUTPLATE RIVET	CCR264SS-3-03	
4		4	4		4	4		4	54	601.1983	NUTPLATE RIVET	CCR274SS-3-03	
12		12	12		12	12		12	53	601.2980	NUTPLATE RIVET	CCR264SS-3-04	
12		12	12		12	12		12	52	600.0795	NUTPLATE	MS21047-3	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

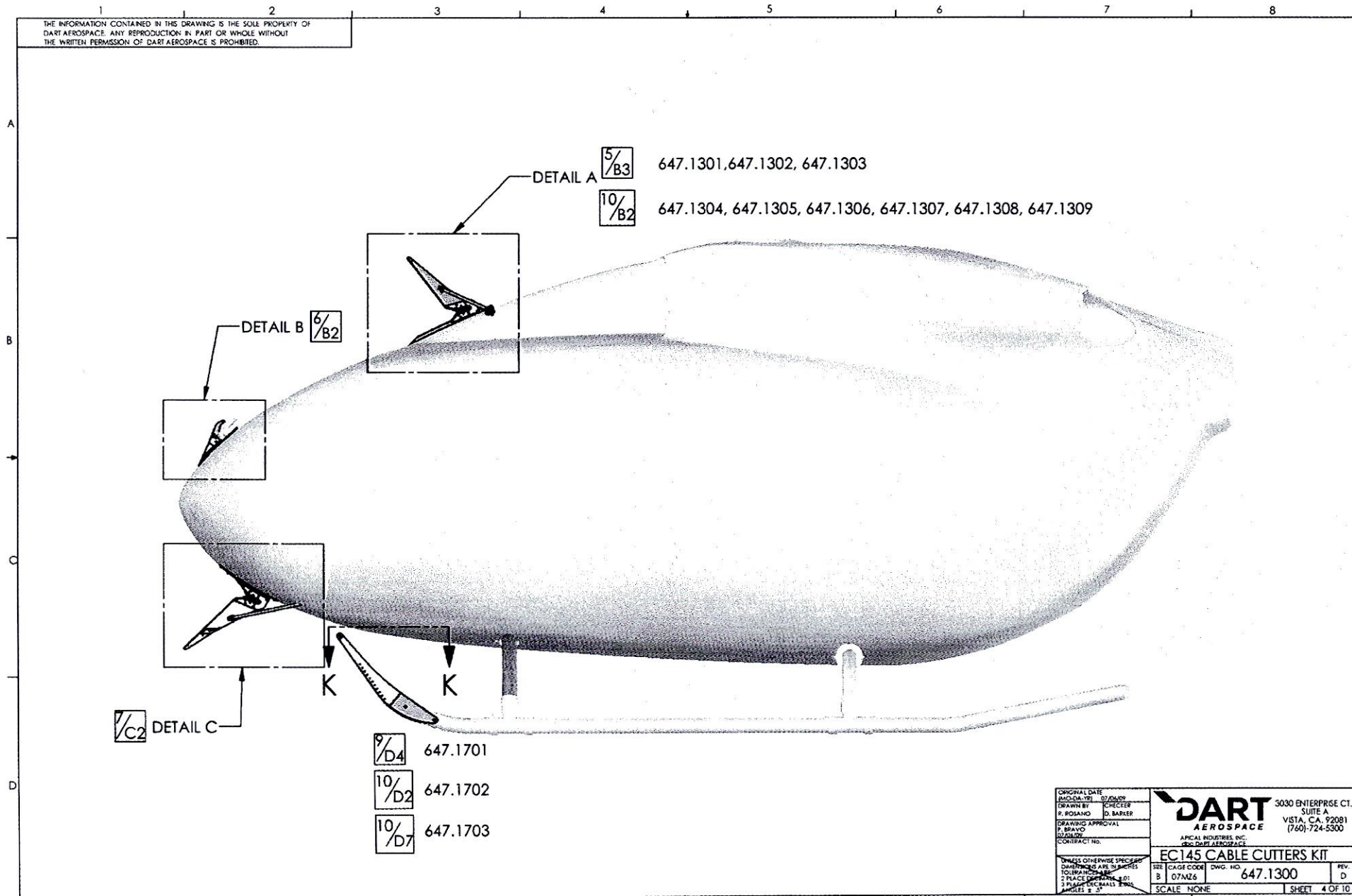
BOM Table(Restructured)

ORIGINAL DATE
07/24/09
DRAWN BY
R. ROSAND
CHECKED
D. BARKER
DRAWING APPROVAL
P. BRAYO
07/24/09
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005
ANGLES ±.5°

 DART AEROSPACE		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
		APCAL INDUSTRIES, INC. 300 DART AEROSPACE PL. EC145 CABLE CUTTERS KIT	
SIZE B	CAGE CODE 07MA26	DWG. NO. 647.1300	REV. D
SCALE NONE		SHEET 3 OF 10	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.



5/B3

647.1301, 647.1302, 647.1303

10/B2

647.1304, 647.1305, 647.1306, 647.1307, 647.1308, 647.1309

6/B2

1/C2

9/D4

647.1701

10/D2

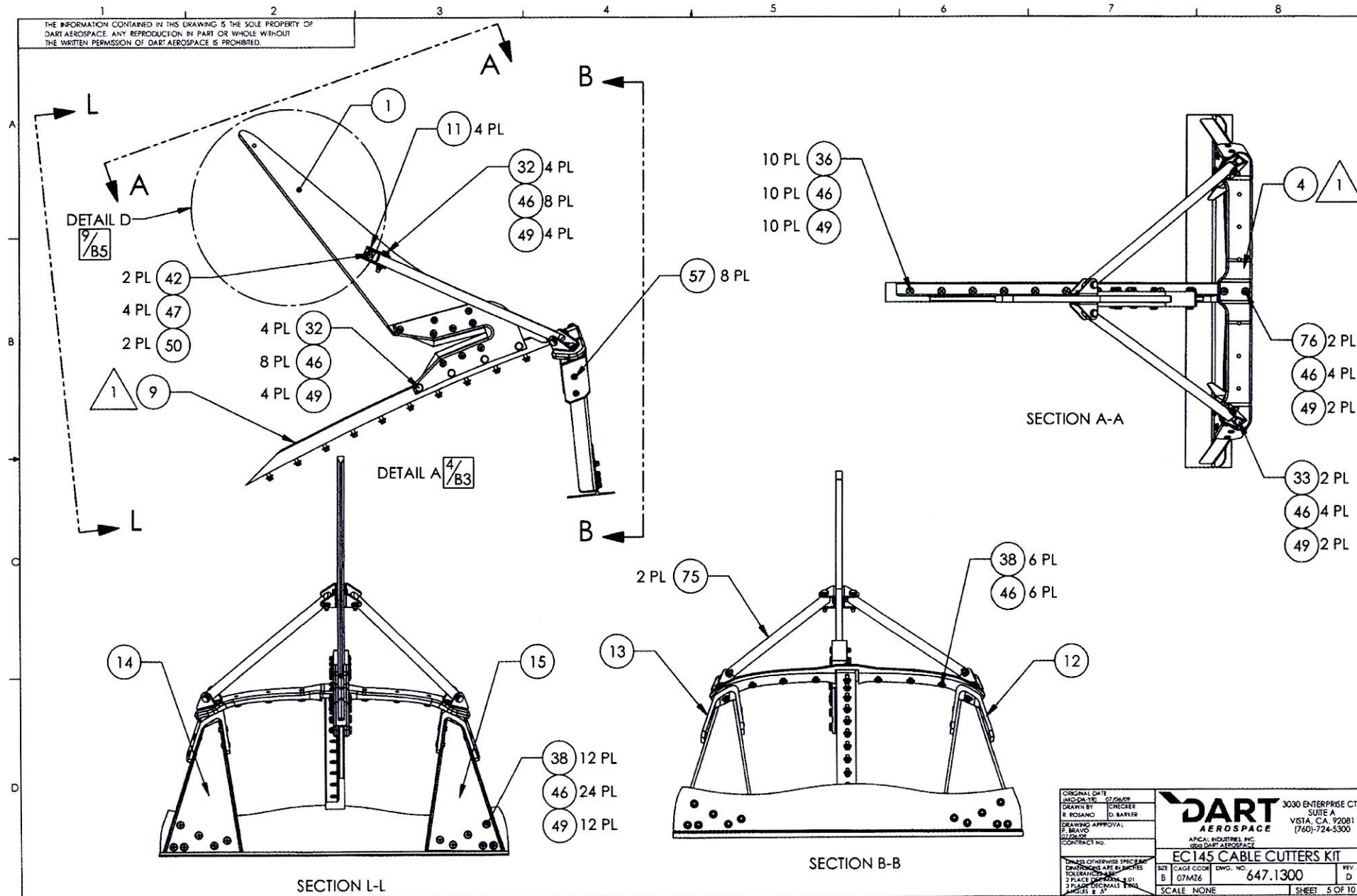
647.1702

10/D7

647.1703

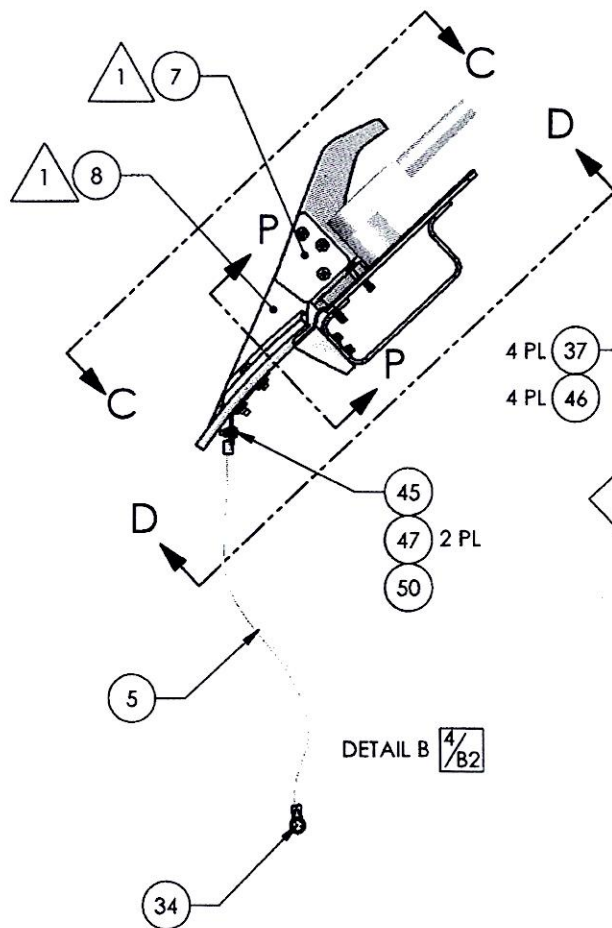
ORIGINAL DATE: 07/20/07		3030 ENTERPRISE CT., SUITE A	
DESIGNED BY: P. ROSANO		VISTA, CA. 92081	
DRAWN BY: D. BARBER		(760)-724-5300	
DRAWING APPROVAL: P. BRAVO		APICAL INDUSTRIES, INC.	
CONTRACT NO.		DART AEROSPACE	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES		EC145 CABLE CUTTERS KIT	
TOLERANCES:		SIZE: CAGE CODE: DWG. NO. REV.	
1. FRACTIONS: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000			

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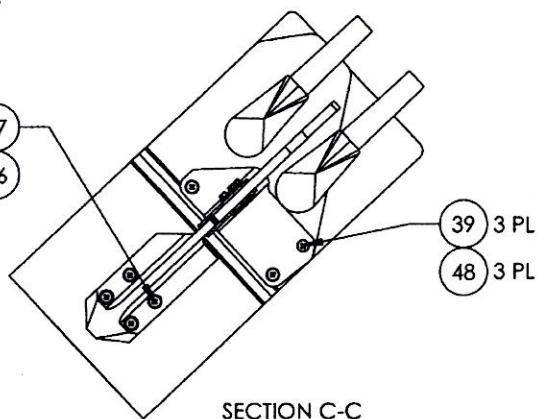


ORIGINAL DATE		3030 ENTERPRISE CT., SUITE A	
DRAWN BY		VISTA, CA, 92081	
R. ROSANO		(760)-724-5300	
CHECKED BY		D. BARTER	
DRAWING APPROVAL		APICAL INDUSTRIES, INC.	
R. BRAVO		1000 DART AEROSPACE	
DATE		EC145 CABLE CUTTERS KIT	
CONTRACT NO.		SIZE	
UNLESS OTHERWISE SPECIFIED		B 07M26	
DIMENSIONS ARE IN INCHES		DWG. NO.	
TOLERANCES ARE SHOWN		647.1300	
2 PLACE DECIMALS ±.01		REV.	
3 PLACE DECIMALS ±.001		D.	
ANGLES ± 5°		SCALE NONE	
		SHEET 5 OF 10	

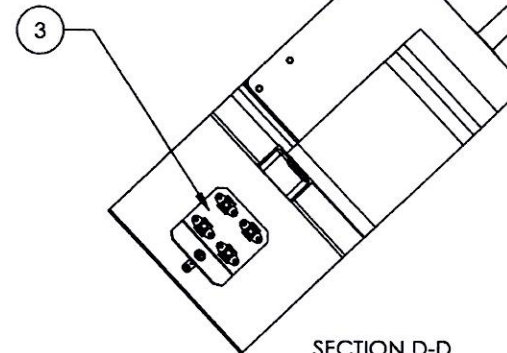
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THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.



4 PL 37
4 PL 46

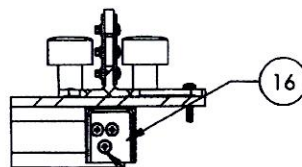


SECTION C-C



SECTION D-D

DETAIL B 4/82

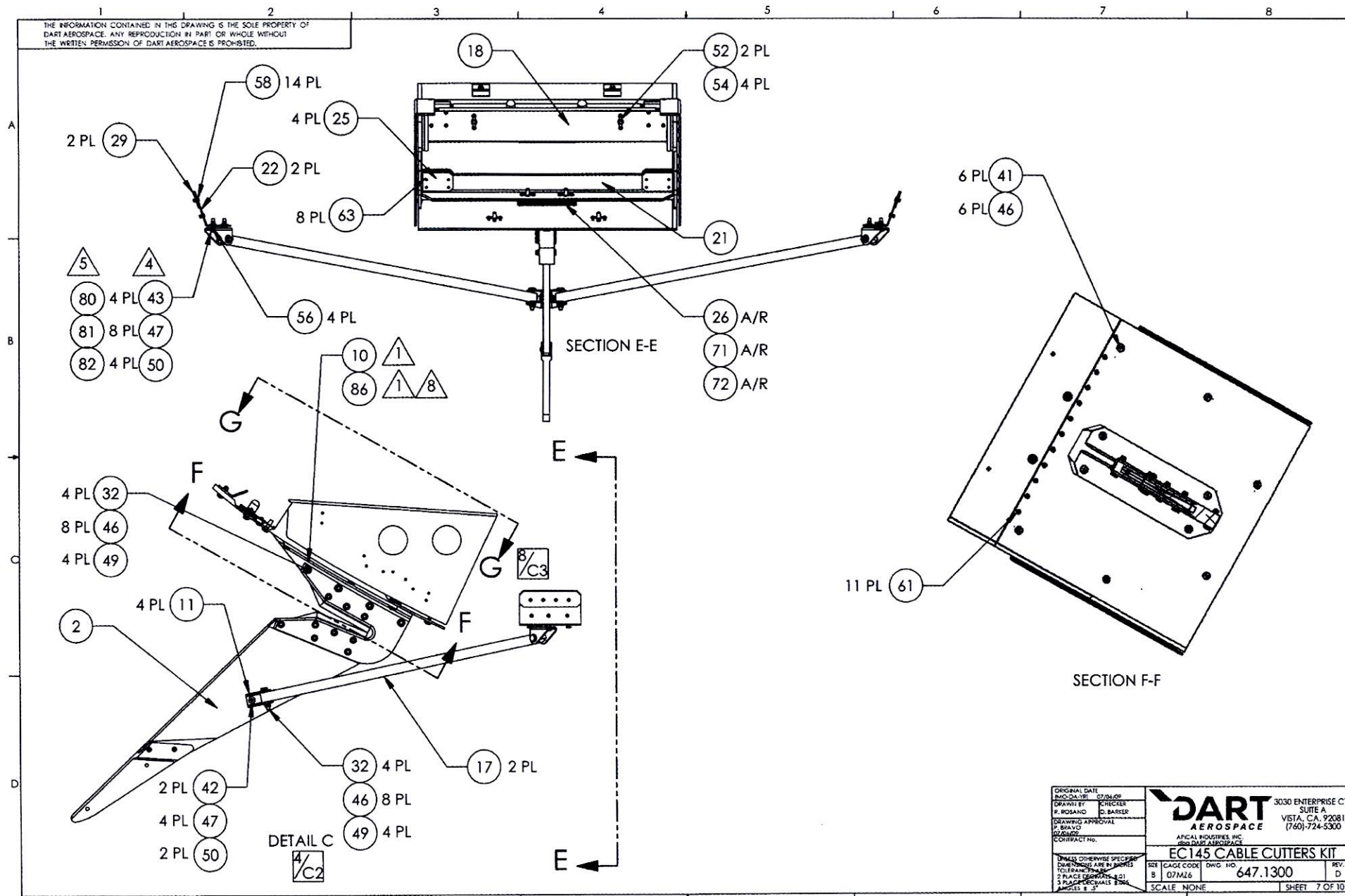


SECTION P-P

40 3 PL
46 6 PL
49 3 PL

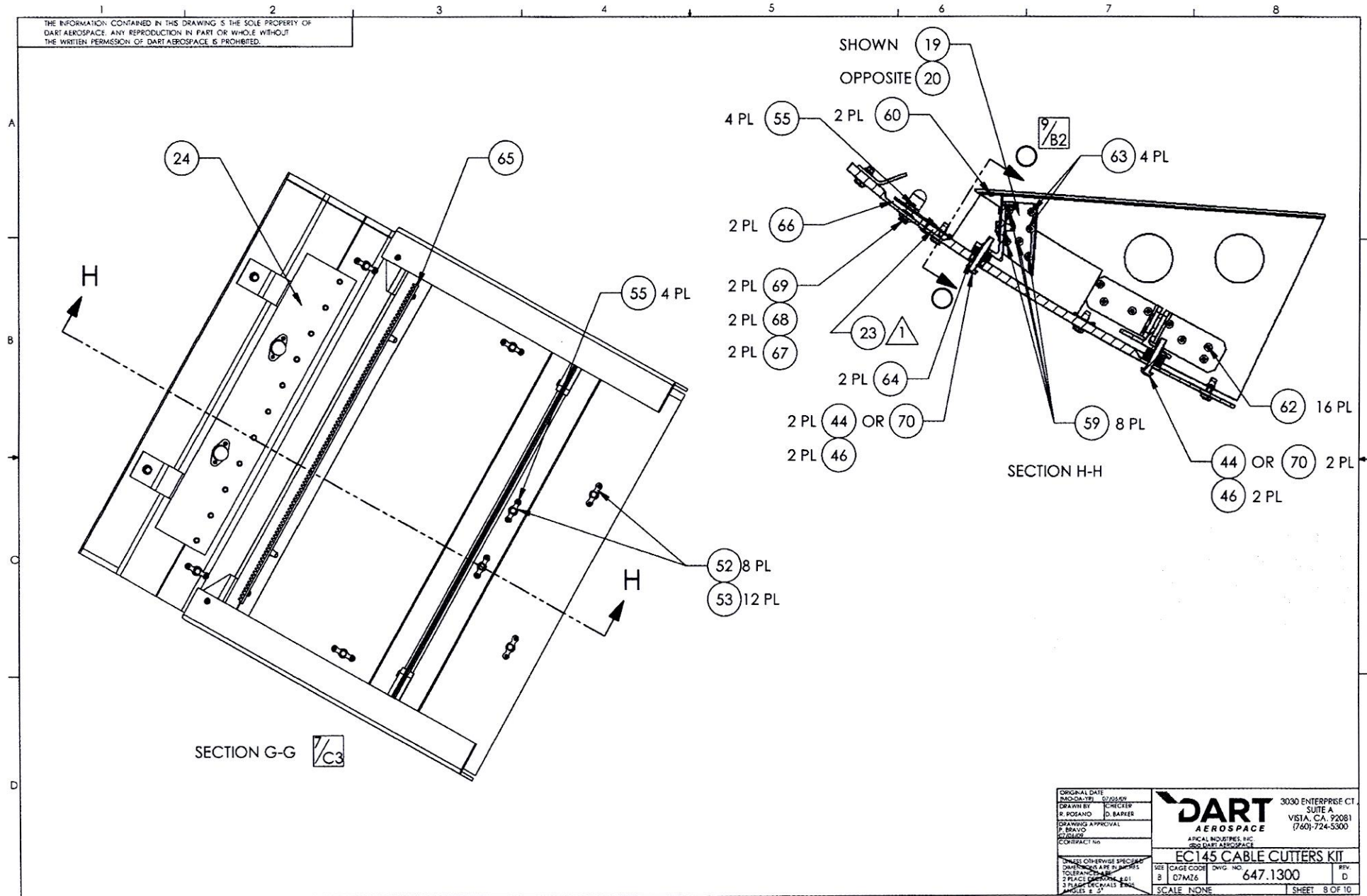
ORIGINAL DATE		DRAFT		3030 ENTERPRISE CT., SUITE A, VISTA, CA 92081 (760)-724-5300	
DESIGNED BY		DRAWN BY		DART AEROSPACE	
P. ROSANO		D. BARBER		APICAL INDUSTRIES INC. 6000 DART AEROSPACE	
DRAWING APPROVAL		P. BRAND		EC145 CABLE CUTTERS KIT	
P. BRAND		P. BRAND		SHEET 6 OF 10	
CONTRACT NO.		CAGE CODE		DWG. NO.	
UNLESS OTHERWISE SPECIFIED		8 07M26		647.1300	
DIMENSIONS ARE IN INCHES		TOLERANCES ARE		REV. D	
2 DECIMALS		3 PLACES DECIMALS		SCALE NONE	
ANGLES ± .5°					

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.



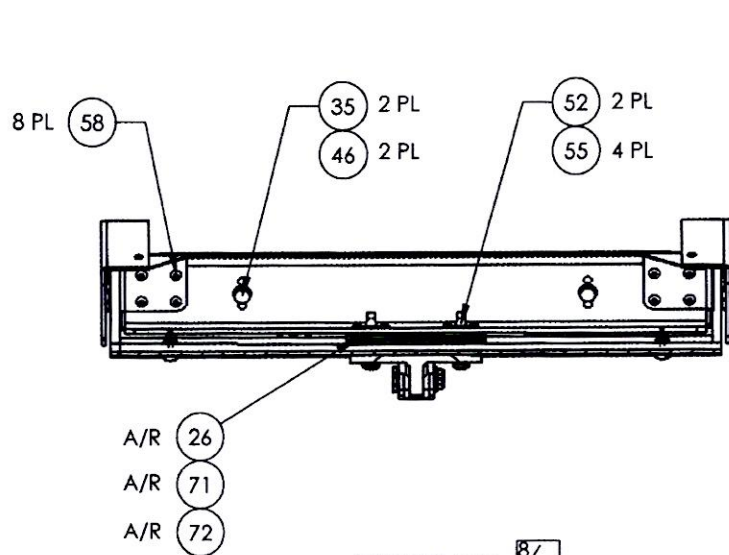
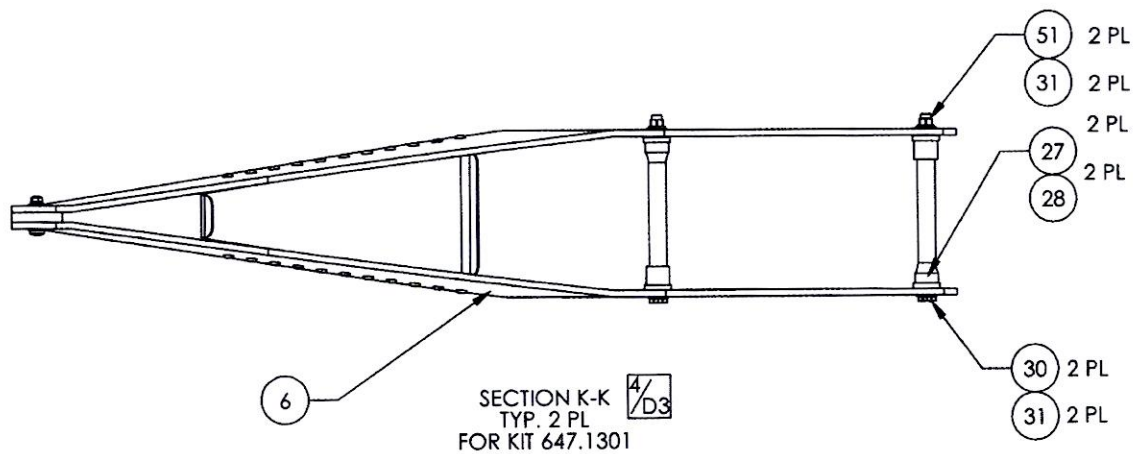
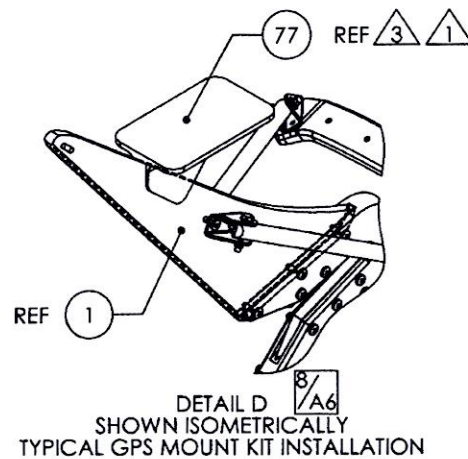
ORIGINAL DATE 07/04/09	3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5300
DRAWN BY H. ROSANO	CHECKED D. BARBER
DESIGNED BY P. BRAYO	APPROVED D. BARBER
CONTRACT NO.	
DIMENSIONS UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	SCALE NONE
SIZE B	CAGE CODE 07M16
QWC NO. 647.1300	REV. D
SHEET 7 OF 10	

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DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE 12/03/05	3030 ENTERPRISE CT. SUITE A VISTA, CA, 92081 (760)-724-5300
DRAWN BY R. POSANO D. BARKER	DART AEROSPACE
DRAWING APPROVAL P. BRAVO	AFICAL INDUSTRIES, INC. 3800 DART AEROSPACE
CONTRACT NO.	EC145 CABLE CUTTERS KIT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS ±.01 3 PLACES DECIMALS ±.001 ANGLES ±.5°	REV. D
REV. CAGE CODE B 07M26	DWG. NO. 647.1300
SCALE NONE SHEET 8 OF 10	

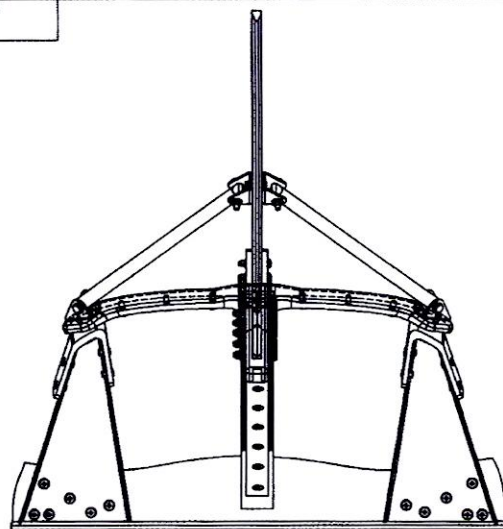
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SECTION O-O 

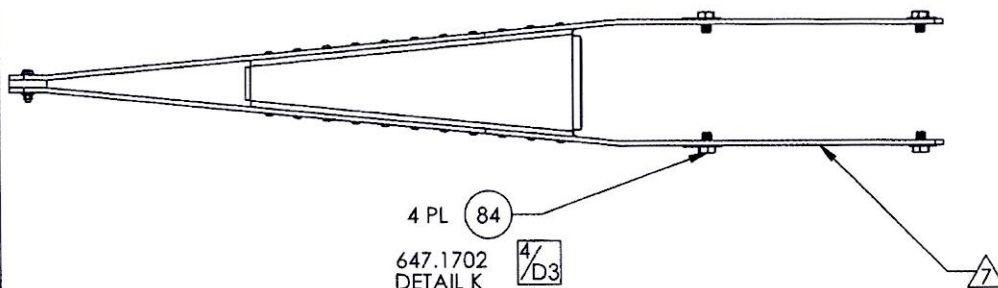
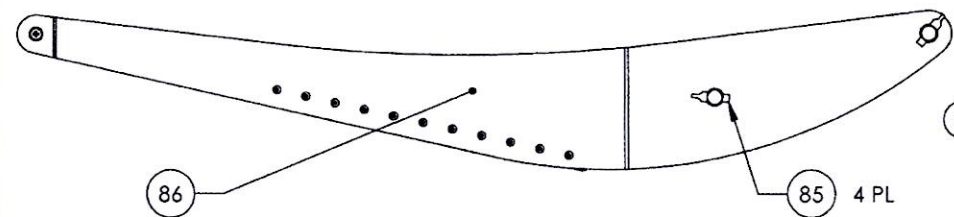
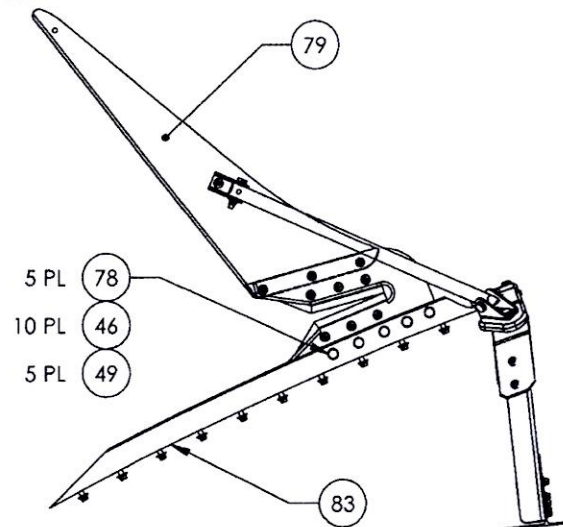
INBOARD

ORIGINAL DATE MODA-171 07/04/00		3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 760-724-5300		
DRAWN BY B. JOHNSON D. BARKER				
DRAWING APPROVAL P. BRAYO 07/04/00	APICAL INDUSTRIES, INC. 1000 N. LAS LUNAS BLVD.			
CONTRACT NO.				
EC145 CABLE CUTTERS KIT				
1. ALL ENTERPRISE SPECIFIED DIMENSIONS ARE IN INCHES 2. ALL DIMENSIONS ARE TO FACE 3. ALL DIMENSIONS ARE TO FACE 4. ALL DIMENSIONS ARE TO FACE	SEE B	GAGE CODE 07M26	DWG. NO. 647.1300	REV. D
SCALE NONE		SHEET 9 OF 10		

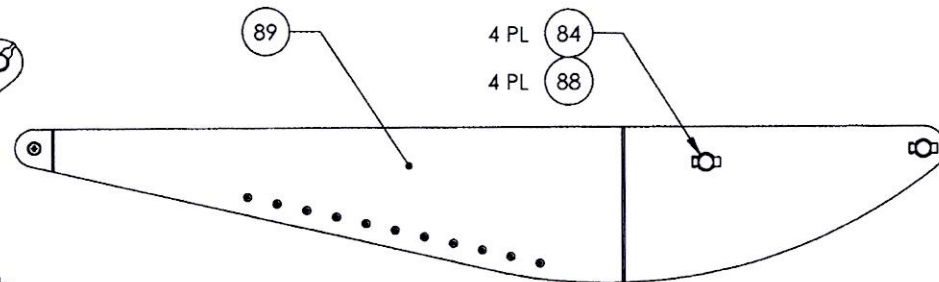
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.



DETAIL A
WITH U CHANNEL $\frac{4}{B3}$



647.1702
DETAIL K
ALTERNATE CONFIGURATION
FOR P/N 647.1303



647.1703
DETAIL K
T2 CONFIGURATION

ORIGINAL DATE 10/04/09		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY K. ROSANO	CHECKED D. BARBER	DART AEROSPACE	
DRAWING APPROVAL P. BRAVO	DATE 10/04/09	APICAL INDUSTRIES, INC. DART AEROSPACE	
CONTRACT NO.		EC145 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET B	10 OF 10
CAGE CODE 07MZ6		DWG. NO. 647.1300	REV. D
SCALE NONE			

Work Order ID 149968***149968***

Page 1

Tuesday, August 30, 2016 10:59:42 AM

Item ID: 647.1307 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: EC145 T2 Cable Cutter System

Start Date: 8/19/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/16/2016 Req'd Qty: 1.00 ***1*** Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.1300	D

DAS
21
9-89

AUG 31 2016

100 0.00
100 DOCUMENT CONTROL
DC Memo 0.00
Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP 647.1307

110 0.00
110 Pick Kit
Packaging Memo 0.00
Packaging

120 0.00
120 QC4- 100% Inspect kits for completeness
QC Memo 0.00
Quality Control

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

NOTES: UNLESS OTHERWISE SPECIFIED

- 1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES
- 2 APPLY F/N 74 TO FAYING SURFACES
- 3 AT CUSTOMERS OPTION, INSTALL F/N 77 BY MATCH DRILLING ONTO F/N 1
- 4 INSTALL FOR 647.1301, 647.1302.
- 5 INSTALL FOR 647.1304, 647.1305.
- 6 APPLICABLE WHEN EUROCOPTER P/N 145-250014.11 IS INSTALLED WITH EUROCOPTER CABLE CUTTER FIXED PROVISIONS.
- 7 APPLICABLE WHEN REPLACING EUROCOPTER P/N 145-250074.11
- 8 INSTALL WITH:
647.1304
647.1305
647.1307
647.1308

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
REV.	LAST PROTOTYPE REVISION: P13		APC
APC	INITIAL RELEASE	08/05/09	P. BRAVO
A	INCORPORATED ECH 02943, 03030, 03048	01/25/11	P. BRAVO
B	INCORPORATED ECH 03919	07/05/13	P. BRAVO
C	INCORPORATED ECH 04089	08/13/13	P. BRAVO
D	INCORPORATED ECHS 04485, 045921 & 04976	04/17/15	P. BRAVO

1		1		1	1		1	14	647.1817	SUPPORT, RH		
1		1	1		1	1		13	647.1912	BRACKET, LH		
1		1	1		1	1		12	647.1911	BRACKET, RH		
	8	8		8	8		8	8	11	647.0112	STRUT BRACKET	
							1	1	10	647.2110	LOWER RAIL	
							1	1	9	647.2111	UPPER RAIL	
	1	1		1	1		1	1	8	647.1610	WIPER DEFLECTOR, FWD	
	1	1		1	1		1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT	
							2	2	6	647.1701	SKID DEFLECTOR ASSY	
1		1	1		1	1		1	5	647.3201	GROUNDING CABLE ASSY	
1		1	1		1	1		1	4	647.2201	CROSS ASSY	
1		1	1		1	1		1	3	647.1602	DOUBLER ASSY	
	1	1		1	1		1	1	2	647.1402	CUTTER ASSY (LOWER)	
							1	1	1	647.1401	CUTTER ASSY (UPPER)	
X										647.1309	EC145 T2 FIXED PROVISIONS KIT	
	X									647.1308	EC145 T2 REMOVABLE PROVISIONS KIT	
		X								647.1307	EC145 T2 CABLE CUTTERS KIT	
			X							647.1306	FIXED PROVISIONS KIT U CHANNEL	
				X						647.1305	REMOVABLE PROVISIONS KIT U CHANNEL	
					X					647.1304	EC145 CABLE CUTTERS KIT U CHANNEL COMPATIBLE	
						X				647.1303	FIXED PROVISIONS KIT	
							X			647.1302	REMOVABLE PROVISIONS KIT	
								X		647.1301	EC145 CABLE CUTTERS KIT	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	DESCRIPTION	MATL	SPEC.

BOM Table (Restructured)

QTY	ORIGINAL DATE	DATE	BY	CHKD
NEXT ASSY (S)	DRAWN BY	CHECKED	DATE	BY
	DRAWING APPROVAL	DATE	BY	CHKD
	CONTRACT NO.			
	DRAWING OTHER SPECIFIC			
	CHANGING ARE IN SQUARES			
	2 PLACE DECIMALS & 23			
	3 PLACE DECIMALS & 24			
	4 PLACE DECIMALS & 25			

PARTS LIST	
DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760) 724-5300 APICAL INDUSTRIES, INC. 6800 DART AEROSPACE	
EC145 CABLE CUTTERS KIT SIZE CAGA CODE DWG. NO. 647.1300 B 07M26 SCALE NONE SHEET 1 OF 10	

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	4	4		4	4		4	4	51	601.3209	LOCKNUT	MS21042L4	
1	4	5	1	4	5	1	8	9	50	601.2973	LOCKNUT	MS21042-08	
27	19	46	27	19	46	27	18	45	49	601.2943	LOCKNUT	MS21042-3	
	3	3		3	3		3	3	48	601.2375	WASHER		
2	8	10	2	8	10	2	16	18	47	601.2764	WASHER	NAS1149FN832P	
62	42	104	62	42	104	62	40	102	46	601.1607	WASHER	NAS1149F0332P	
1		1	1		1	1		1	45	601.2525	SCREW	MS27039-0807	
4		4	4		4	4		4	44	601.1952	SCREW	MS27039-1-20	
							4	4	43	601.3010	SCREW	MS27039-0810	
	4	4		4	4		4	4	42	601.3224	SCREW	AN525-10R12	
6		6	6		6	6		6	41	601.1365	SCREW	MS27039-1-10	
3		3	3		3	3		3	40	601.2198	SCREW	MS27039-1-07	
	3	3		3	3		3	3	39	601.2999	SCREW		
18		18	18		18	18		18	38	601.2459	SCREW	MS27039C1-06	
	4	4		4	4		4	4	37	601.1622	SCREW	MS27039-1-14	
10		10	10		10	10		10	36	601.2051	SCREW	MS24694C52	
2		2	2		2	2		2	35	601.2823	BOLT	AN3-4A	
1		1	1		1	1		1	34	601.1324	BOLT	AN4CH6A	
	2	2		2	2		2	2	33	601.1874	BOLT	AN3C10A	
12		12	12		12	12		16	32	601.2826	BOLT	AN3-11A	
	8	8		8	8		8	8	31	601.2638	WASHER	NAS1149F0432P	
	4	4		4	4		4	4	30	601.3002	BOLT	NAS6604-66	
2		2	2		2	2		2	29	647.1811	SPACER		
4		4	4		4	4		4	28	647.2511	NUT		
4		4	4		4	4		4	27	647.2510	SLEEVE		
13		13	13		13	13		13	26	647.1812	SHIM		
4		4	4		4	4		4	25	647.1910	CLIP		
1		1	1		1	1		1	24	647.1810	NOSE DOOR DOUBLER		
1		1	1		1	1		1	23	647.1818	NOSE DOOR SPACER		
2		2	2		2	2		2	22	647.1813	ANGLE		
1		1	1		1	1		1	21	647.1913	TEE		
1		1	1		1	1		1	20	647.1814	GUSSET, LH		
1		1	1		1	1		1	19	647.1815	GUSSET, RH		
1		1	1		1	1		1	18	647.1915	SUPPORT ANGLE		
	2	2		2	2		2	2	17	647.2011	LOWER STRUT		
1		1	1		1	1		1	16	647.1914	BRACKET		
1		1	1		1	1		1	15	647.1816	SUPPORT, LH		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

ORIGINAL DATE (MO-DA-YR)	07/06/09	DART AEROSPACE 3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300 AERIAL READINGS, INC. (DART) AEROSPACE
DRAWN BY	CHECKER	
DRAWING APPROVAL	P. BRAVO 08/06/09	
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.003 2 PLACE DECIMALS ±.010 ANGLES ± .5°		EC145 CABLE CUTTERS KIT SEE CAGE CODE B 07MAZ6 DWG. NO. 647.1300 SCALE NONE SHEET 2 OF 10

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	2	2							89	647.1703	T2 SKID DEFLECTOR ASSY		
	8	8							88	601.3812	LOCK TAB	LN9023A8-1.4544.9	
				2	2				87	647.1702	SKID DEFLECTOR ASSY		
	1	1		1	1				86	647.2113	LOWER RAIL (U CHANNEL KIT)		
	8	8		8	8				85	601.3655	WASHER	LN9025-0820K	
	8	8		8	8				84	601.3654	SCREW	LN9037-08018	
1		1	1		1				83	647.2112	UPPER U CHANNEL		
	8	8		8	8				82	601.3653	WASHER	93475A270	
	4	4		4	4				81	601.3652	LOCKNUT	93625A300	
	4	4		4	4				80	601.3651	SCREW	91292A080	
	1	1		1	1				79	647.1403	CUTTER ASSY (UPPER U CHANNEL)		
	5	5		5	5				78	601.3650	BOLT	AN3-15A	
REF	REF	REF	REF	REF	REF	REF	REF	REF	77	647.5701	GPS MOUNT KIT		
2		2	2		2	2		2	76	601.1954	SCREW	MS27039-1-17	
	2	2		2	2		2	2	75	647.2010	UPPER STRUT		
1	1	1	1	1	1	1	1	1	74	601.2045	RTV	LOCTITE 598	
1	1	1	1	1	1	1	1	1	73	600.1012	SEALANT	PR-1425 CLASS B	
1	1	1	1	1	1	1	1	1	72	600.0991	MAGNOBOND 6398 PART B		
1	1	1	1	1	1	1	1	1	71	600.0990	MAGNOBOND 6398 PART A		
4		4	4		4	4		4	70	601.3012	SCREW	MS27039-1-15	
2		2	2		2	2		2	69	601.3004	CAMLOC STUD		
2		2	2		2	2		2	68	601.3005	CAMLOC RETAINER		
2		2	2		2	2		2	67	601.3006	CAMLOC RECEPTACLE		
3 FT.		3 FT.	3 FT.		3 FT.	3 FT.		3 FT.	66	601.3011	P-SEAL		
1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	65	601.3007	GROMMET	MS21266-2N	
2		2	2		2	2		2	64	601.3008	INSERT	NAS1834C3-300	
12		12	12		12	12		12	63	601.2364	RIVET	CR3213-4-8	
16		16	16		16	16		16	62	601.2468	RIVET	CR3213-4-7	
11		11	11		11	11		11	61	601.2991	RIVET	CR3213-4-6	
2		2	2		2	2		2	60	601.1039	RIVET	CR3213-4-2	
8		8	8		8	8		8	59	601.1183	RIVET	CR3213-4-5	
22		22	22		22	22		22	58	601.0790	RIVET	CR3213-4-3	
8		8	8		8	8		8	57	601.2995	RIVET	CR3213-6-6	
4		4	4		4	4		4	56	601.1915	RIVET	CR3213-4-4	
12		12	12		12	12		12	55	601.2207	NUTPLATE RIVET	CCR2645S-3-03	
4		4	4		4	4		4	54	601.1983	NUTPLATE RIVET	CCR2745S-3-03	
12		12	12		12	12		12	53	601.2980	NUTPLATE RIVET	CCR2645S-3-04	
12		12	12		12	12		12	52	600.0795	NUTPLATE	MS21047-3	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

BOM Table (Restructured)

ORIGINAL DATE
JUN-04-1981 07:00:09
DRAWN BY
R. ROSAND
CHECKED BY
D. BARKER
DRAWING APPROVAL
P. BRAVO
07/00/09
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005
ANGLES ±.5°

		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
		AFICAL INDUSTRIES, INC. 3030 ENTERPRISE CT. VISTA, CA. 92081 (760)-724-5300	
EC145 CABLE CUTTERS KIT			
SHEET	CAGE CODE	DWG. NO.	REV.
B	07MA26	647.1300	D
SCALE NONE			SHEET 3 OF 10